### (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

# (19) World Intellectual Property Organization International Bureau



## 

(43) International Publication Date 26 February 2004 (26.02.2004)

**PCT** 

## (10) International Publication Number WO 2004/017040 A2

(51) International Patent Classification7:

**G01N** 

(21) International Application Number:

PCT/US2003/025367

(22) International Filing Date: 13 August 2003 (13.08.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/403,909 0221469.0 16 August 2002 (16.08.2002) US 16 September 2002 (16.09.2002) GB

(71) Applicant (for all designated States except US): GENE-PROT, INC. [US/US]; 1031 U.S. Highway 22, Suite #302, Bridgewater, NJ 08807 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): BAUSSANT, Thierry [FR/CH]; GeneProt, Inc., 2, Pré-de-la Fontaine, CH-1217 Meyrin (CH). BOEHM, Guenter [DE/CH]; GeneProt, Inc., 2, Pré-de-la Fontaine, CH-1217 Meyrin (CH). HELLER, Manfred [CH/CH]; GeneProt, Inc., 2, Pré-de-la Fontaine, CH-1217 Meyrin (CH). KUSSMANN, Martin [DE/CH]; GeneProt, Inc., 2, Pré-de-la Fontaine, CH-1217 Meyrin (CH). MENIN, Laure [FR/CH]; Gene-Prot, Inc., 2, Pré-de-la Fontaine, CH-1217 Meyrin (CH). ROGERS, John [FR/CH]; Gene-Prot, Inc., 2, Pré-de-la

Fontaine, CH-1217 Meyrin (CH). ROSE, Keith [GB/CH]; GeneProt, Inc., 2, Pré-de-la Fontaine, CH-1217 Meyrin (CH).

- (74) Agents: MAHONEY, Jacqueline, F. et al.; Perkins Coie LLP, P.O. Box 2168, Menlo Park, CA 94026 (US).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### Published:

 without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: MULTI-DIMENSIONAL CHROMATOGRAPHY SYSTEM FOR PROTEOMICS

(57) Abstract: The present invention relates generally to methods and compositions for identifying biomolecules present in a biological sample. More specifically, the present invention relates to mass spectrometry-based methods and compositions for identifying proteins present in a body fluid.